



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

**Office of Commercial Space Transportation: Waypoint 2
Space Safety Approval Performance Criteria**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice.

SUMMARY: This is notification of criteria used to evaluate the Waypoint 2 Space, Inc. (W2S) safety approval application. The FAA issued W2S a safety approval, subject to the provisions of Title 51 U.S.C Subtitle V, ch. 509, and the orders, rules and regulations issued under it. Pursuant to Title 14 Code of Federal Regulations (14 CFR) § 414.35, this Notice publishes the criteria that were used to evaluate the safety approval application.

FOR FURTHER INFORMATION, CONTACT: For questions about the performance criteria, you may contact Randal Maday, Licensing and Evaluation Division (AST-200), FAA Office of Commercial Space Transportation (AST), 800 Independence Avenue SW, Room 331, Washington, DC 20591, telephone (202) 267-8652; E-mail randal.maday@faa.gov.

SUPPLEMENTARY INFORMATION:

Background: W2S applied for, and received, a safety approval for its ability to provide as a service that includes classroom training in: Aerospace Physiology, Centrifuge, Altitude Chambers, Weightlessness, Neutral Buoyancy, Aerobatic Flight, Spacecraft Systems, Crew Resource Management, Pilot Procedures, Nominal and Off Nominal Procedures, Emergency Procedures, Egress, Survival, Search and Rescue, and Extra-Vehicular Activity. The training service includes Space Flight Participant, Commercial Payload Specialist, and Spaceflight Instructor Training Programs. In addition, the service includes practical Sub-Orbital and Orbital Flight training in: Neutral Buoyancy Environments, Parabolic Flight, Flight Simulators, Altitude Chambers, Spin and Upset Recovery, and G-Force adaptation.

W2S may offer its commercial space training service to a prospective launch and reentry operator to meet the applicable crew and space flight participant training requirements of 14 CFR 460.5 and 14 CFR 460.51.

Criteria Used to Evaluate Safety Approval Application:

The performance criteria for this safety approval include: Air Education and Training Instruction 11-219 Initial Flight

Screening, Air Force Instruction (AFI) 11-401 Aerospace Physiological Training Program, AFI 11-202V1 Aircrew Training, AFI11-202V2 Aircrew Standardization/Evaluation Program, NASA/TP-2001-213726 A Review of Training Methods and Instructional Techniques, AFI 11-2C-130V1 C-130 Aircrew Training, and AFI 11-301V1 Aircrew Flight Equipment (AFE) Program. Furthermore, the performance criteria include 14 CFR 61.31(g) for additional training required for operating pressurized aircraft capable of operating at high altitudes. These United States Air Force, NASA, and FAA criteria are acceptable technical criteria for reviewing a safety approval application per 14 CFR 414.19. Many aspects of aviation training also apply to aerospace operations because it addresses human-vehicle interactions common to both aviation and aerospace. Training for Extra Vehicular Activity (EVA) is also applicable because it pertains to operations that include Intra Vehicular Activity (IVA) in microgravity, which is performed during ascent and entry.

The Spaceflight Instructor Training Program serves to develop instructors to better train space flight participants and crew.

The FAA's evaluation included assessment of W2S's commercial space training service lesson plans and objectives, which include classroom, simulator, and flight training for crew and

space flight participants to experience and demonstrate knowledge of the following through testing:

- Understand operations, environments, and the physiological effects associated with space flight.
- Understand and demonstrate crew resource management operations.
- Demonstrate adaptation and the ability to conduct applicable operations in spaceflight environments, which include flight during high and low gravity phases.
- Demonstrate competence in operations requiring use of a partial pressure suit.
- Demonstrate emergency egress procedures and proper use of life support equipment without assistance.
- Understand and experience nominal and off nominal vehicle conditions during flight.

Dr. George C. Nield
Associate Administrator for
Commercial Space Transportation

Issued in Washington, DC, on February 24, 2014.